Artificial Intelligence and Ethics

For Prelims: Application of AI, Machine Learning, Related Government Schemes, International Agreements

For Mains: Rules and Regulations for AI, Effect of AI on other Sectors and Society, Challenges and Initiatives for AI

Why in News?

UNESCO's Global Agreement on the Ethics of AI can guide governments and companies alike.

What is Artificial Intelligence?

- It describes the **action of machines accomplishing tasks** that have historically required human intelligence.
- It **includes technologies** like machine learning, pattern recognition, big data, neural networks, self-algorithms etc.
- The **origin of the concept can be traced back to Greek mythology,** although it is only during modern history when stored program electronic computers were developed.
    - **Example:** Millions of algorithms and codes are there around humans to understand their commands and perform human-like tasks. **Facebook's list of suggested friends** for its users, **a pop-up page**, suggesting about an upcoming sale of the favourite brand of shoes and clothes, that comes on screen while browsing the internet, are the work of artificial intelligence.
- AI involves complex things such as **feeding a particular data into the machine** and making it react as per different situations. It is basically about **creating self-learning patterns** where the machine can give answers to the never answered questions like a human would ever do.
- India has made great strides in the development of responsible and ethical AI governance, starting with **NITI Aayog's** #AIForAll campaign to the many corporate strategies that have been adopted to ensure that AI is developed with common, humanistic values at its core.

What are the Ethical Concerns related to Artificial Intelligence?

- **Risk of Unemployment:** The hierarchy of labour is concerned primarily with automation. Robotics and AI companies are building intelligent machines that perform tasks typically carried out by low-income workers: self-service kiosks to replace cashiers, fruit-picking robots to replace field workers, etc.
    - Moreover, the day is not far when many desk jobs will also be edged out by AI, such as accountants, financial traders, and middle managers.
- **Exacerbating Inequalities:** Using artificial intelligence, **a company can drastically cut down on relying on the human workforce,** and this means that revenues will go to fewer people.
    - Consequently, individuals who have ownership in AI-driven companies will make all the money. Also, AI could compound digital exclusion.
    - Further, **investment is likely to shift to countries** where AI-related work is already

established, widening gaps among and within countries.

- **Tech Addiction:** Technological addiction is the **new frontier of human dependency.** AI has already become effective at directing human attention and triggering certain actions.
    - When used right, this **could evolve into an opportunity to nudge society towards more beneficial behavior.**
    - However, in the wrong hands, it could prove detrimental.
- **Discriminating Robots:** We shouldn't forget that AI systems are **created by humans, who can be biased and judgemental.**
    - It can lead to **AI facial recognition** and surveillance technology to discriminate against people of color and minorities.
- **Data Privacy Concerns**: AI also **presents serious data privacy concerns.** The algorithm's never-ending quest for data has led to our digital footprints being harvested and sold without our knowledge or informed consent.
    - The **case of Cambridge Analytica,** in which such algorithms and big data were **used to alter voting decisions,** should serve as a potent warning of the individual and societal concerns resulting from current AI business models.
- **AI Turning against Humans:** What if artificial intelligence itself turned against humans?
    - Imagine an AI system that is asked to eradicate cancer in the world. After a lot of computing, it spits out a formula that does, in fact, bring about the end of cancer – by killing everyone on the planet.

What are the Global Standards for Artificial Intelligence Ethics?

- In 2021, the **Recommendation on the Ethics of Artificial Intelligence** was adopted by UNESCO's General Conference at its 41st session.
    - It aims to fundamentally shift the balance of power between people, and the businesses and governments developing AI.
- **UNESCO** members have agreed to **use affirmative action** to make sure that women and minority groups are fairly represented on AI design teams.
- The recommendation also underscores the importance of the proper management of data, privacy and access to information.
- It calls on member states to ensure that appropriate safeguards are devised for the processing of sensitive data and effective accountability and redress mechanisms are provided.
- The Recommendation takes a strong stance that
    - AI systems **should not be used for social scoring or mass surveillance purposes**
    - Attention **must be paid to the psychological and cognitive impact** that these systems can have on children.
    - Member states **should invest and promote not only digital, media and information literacy skills,** but also socio-emotional and AI ethics skills.
- UNESCO is also in the process of developing tools to help assess the readiness in the implementation of the recommendations.

Way Forward

- Given the global reach of AI, such a **"whole of society" approach must rest on a "whole of world" approach.**
- The **UN Secretary-General's Roadmap on Digital Cooperation** is a good starting point. It lays out the need for multi-stakeholder efforts on global cooperation so AI is used in a manner that is "trustworthy, human rights-based, safe and sustainable, and promotes peace".

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. "The emergence of the Fourth Industrial Revolution (Digital Revolution) has initiated e-Governance as an integral part of government". Discuss. **(2020)**

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